		OIPE							Sheet <u>1</u>	ofl
FORM PTO-144 (REV 7-80)	9	10 2005 PHUL	.S. DEPARTMENT ATENT AND TRAD	OF COMMERCE EMARK OFFICE	ATTY. DOCKET NO. 500444.04	<del></del>		LICATION NO. /648,567		=
INF	ORM	ATION PLOOP SU	RE STATEM	ENT	APPLICANT(S) Troy A. Manning					
		(Use several sheets if no	ecessary)		FILING DATE August 25, 2003		GRO 21.	OUP ART UNIT		
			II C	; DATENT	DOCUMENTS		21.	. <del></del>		
*EXAMINER	<u> </u>	DOCUMENT NUMBER	DATE	PAIENI	NAME	CLA	ss	SUBCLASS	FILING	DATE
INITIAL									IF APPRO	OPRIATE
DT	AA	6,119,242	09/12/00	Harrison		713		503		
	AB		<u> </u>							
	AC				<u></u>	<u> </u>				
	AD					-			-	
	AE									· · ·
	AF									
	AG							<u> </u>		
	AH								·	
	AI			<u>.                                    </u>						
	AJ		FORE			<u> </u>		.L	1	
		DOCUMENT NUMBER	DATE	GN PATER	NT DOCUMENTS  COUNTRY	CLA	SS	SUBCLASS	TRANS	LATION
!									YES	NO
	AK						-			
	AL	-								
	AM									
	AN									
	AO							,		
		ОТНЕ	ER PRIOR A	RT (Including	Author, Title, Date, Pertinent Po	ages, Etc.	)	<u></u>	<u> </u>	
	AP									
	AQ									
	AR							•		
EXAMINE	ER	<u> </u>		T	DATE CONSIDERED	-				

9/21/05

\* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in FORM PTO-14 (REV.7-80) CLOSURE STATEMENT

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

al sheets if necessary)

ATTY. DOCKET NO. 500444.04

APPLICATION NO. 10/648,567

APPLICANT(S)

Troy A. Manning

FILING DATE August 25, 2003 GROUP ART UNIT 2133

#### **U.S. PATENT DOCUMENTS** \*EXAMINER DOCUMENT NUMBER DATE NAME CLASS SUBCLASS FILING DATE INITIAL IF APPROPRIATE 327 158 **りナ** 5,463,337 10/31/95 Leonowich 5,712,883 01/27/98 Miller et al. 375 371 25 06/09/98 Wada et al. 327 271 5,764,092 Donnelly et al. 09/26/00 375 371 6,125,157 ΑE ΑF AG ΑH Αl ΑJ FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATION NO ΑK ٨М ΑN ΑO OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.) Park, D. et al., "Fast Acquisition Frequency Synthesizer with the Multiple Phase Detectors", IEEE Pacific Rim Conference on Communications, Computers and Signal Processing, Vol. 2, ΑP DT May 1991. pp. 665-668. AQ **EXAMINER** DATE CONSIDERED \* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in

,	6	PE CO	· · · · · · · · · · · · · · · · · · ·		<b>1</b>		Γ	<del>-</del>	Sheet _	<u>l_of_l</u>
FORM PTO-144 (REV.7-80)	, R	N 10 Jan B	J.S. DEPARTMENT ATENT AND TRAD		ATTY, DOCKET NO. 500444,04			ICATION NO. 648,567		··
INF	137	THE MESCLOSU	RE STATEM	ENT .	APPLICANT(S) Troy A. Manning					
		(Use several sheets if no	ecessary)		FILING DATE August 25, 2003		GRO1 213	UP ART UNIT		
			U.S	. PATENT 1	DOCUMENTS		-			
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE		NAME	CLA	SS	SUBCLASS	l	G DATE OPRIATE
りて	АА	5,666,313	09/09/97	Ichiguchi		365	•	195		
01	АВ	6,484,244 B1	11/19/02	Manning		711		154		
	AC									
	AD									
	AE						_		ļ 	
- '.	AF		!							
	AG									
	АН									
	Αl									
	ΑJ									
			FORE	IGN PATEN	T DOCUMENTS					
		DOCUMENT NUMBER	DATE		COUNTRY	CLA	ss	SUBCLASS	TRANS	LATION
						<del>                                     </del>		-	YES	NO
	AK							<del></del>		
<del>-</del> .	AL					<b>_</b>				<u> </u>
	AM									
	AN									
	АО									
		отне	CR PRIOR A	RT (Including	Author, Title, Date, Pertinent l	Pages, Etc.,	)			
	АР									
	ΑQ	· · · · · · · · · · · · · · · · · · ·						· · · · ·		
									···	
	AR									

**EXAMINER** 

DATE CONSIDERED

9/21/05

\* EXAMINER:

Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

*	1	$\angle$	U	_
FORM PTO-14 (REV.7-80)	449	/	APR	(

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE ATTY. DOCKET NO. 500444.04

APPLICATION NO. 10/648,567

INFORMATION DISCOSURE STATEMENT

APPLICANT(S) Troy A. Manning

FILING DATE

GROUP ART UNIT

	CHADE TO Sheets If necessary)				FILING DATE August 25, 2003		GROUP ART UNIT Not Yet Assig	gned	
			U.S	. PATENT	DOCUMENTS	_			
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING	DATE OPRIAT
DT	АА	5,120,990	06/09/92	Koker		307	269		
· ·	AB	5,424,687	06/13/95	Fukuda		331	11		
	AC	5,515,403	05/07/96	Sloan et a	1.	375	371		
	AD	5,550,515	08/27/96	Liang et a	1.	331	11		
	ΑE	5,945,855	08/31/99	Momtaz		327	157		
	AF	5,953,386	09/14/99	Anderson		375	376		
	AG	6,115,318	09/05/00	Keeth		365	233		
	AH	6,173,432 B1	01/09/01	Harrison		716	1		
	ΑĪ	6,438,043 B2	08/20/02	Gans et al	•	365	194		
<u> </u>	AJ	6,442,644 B1	08/27/02	Gustavsor	n et al.	711	105		
DT	AK	6,665,222 B2	12/16/03	Wright et	al.	365	203		
			FORE	GN PATEN	NT DOCUMENTS				
		DOCUMENT NUMBER	DATE		COUNTRY	CLASS	SUBCLASS	TRANSI	LATIO
	ļ					<u> </u>		YES	NO
·	AL								
	AM					_			
	AN								
	AO								
·	АP								
	<del>,                                    </del>	ОТНЕ	R PRIOR A	RT (Including	Author, Title, Date, Pertinent	Pages, Etc.)		<del></del>	
	AQ								
	AR								
EXAMINE	ER	Dans	den		DATE CONSIDERE		21/05		
EXAMINI		Initial if reference consider	red, whether or no	t criteria is in cor	nformance with MPEP 609. Drivith next communication to app	raw line throug	<u> </u>		

FORM PTO-1449 (REV.7-80)			.S. DEPARTMENT ATENT AND TRAD		ATTY. DOCKET NO. 500444.04			ICATION NO. 648,567		
INFO	)DM	ATION DISCLOSU	RE STATEM	FNT	APPLICANT(S) Troy A. Manning					
OVP	2	(Use several sheets if no			FILING DATE			UP ART UNIT		
		<u>8</u>		<del></del>	August 25, 2003		No	t Yet Assig	med	
DEC 1	5 200		U.S.	PATENT I	DOCUMENTS					
EXAMINER INCIAL		DECUMENT NUMBER	DATE		NAME	CLA	.SS	SUBCLASS		DATE
DI	AA	4,984,255	01/08/91	Davis et a	1.	375		106		
	AB	5,315,269	05/24/94	Fujii		331		1 A		
	AC	5,577,079	11/19/96	Zenno et a	al	375		373		
	AD	6,026,134	02/15/00	Duffy et a	1	375		376		
	AE	6,087,857	07/11/00	Wang		327		5		· ·
	AF	6,253,360 B1	06/26/01	Yoshiba		716		6		
105	AG	6,285,726 B1	09/04/01	Gaudet		375		376		
	АН									
	ΑI							,		
	AJ								·	
			FOREI	GN PATEN	T DOCUMENTS					
		DOCUMENT NUMBER	DATE		COUNTRY	CLA	.ss	SUBCLASS	TRANS	ATION
				-					YES	NO
	AK									
	AL									
	AM	**************************************	·							
	AN									
	AO									
		. OTHE	R PRIOR A	RT (Including	Author, Title, Date, Pertinent Pa	ges, Etc.,	)			
	AP	<u></u>	•							
	AQ									
	AR									
EXAMINE	R				DATE CONSIDERED					
			audi	m	·	9/-	21/	05		
* EXAMINE					nformance with MPEP 609. Draw		ough ci	itation if not in		

NO

APPLICATION NO. U.S. DEPARTMENT OF COMMERCE ATTY. DOCKET NO. FORM PTO-1449 SPATENT AND TRADEMARK OFFICE (REV.7-80) 500444.04 10/648,567 APPLICANT(S) INFORMATION DISCLOSURE STATEMENT Troy A. Manning GROUP ART UNIT FILING DATE Not Yet Assigned August 25, 2003 **U.S. PATENT DOCUMENTS** \*EXAMINER DOCUMENT NUMBER DATE NAME CLASS SUBCLASS FILING DATE INITIAL IF APPROPRIATE DI 327 3 6,014,042 01/11/00 Nguyen 6,295,328 B1 09/25/01 Kim et al. 375 376 ΑB 6,327,318 B1 12/04/01 Bhullar et al. 375 374 AC 6,377,646 B1 04/23/02 Sha 375 376 ΑD ΑE ΑF ΑG AH ΑI ΑJ FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER COUNTRY SUBCLASS TRANSLATION DATE **CLASS** YES ΑK AL AM AN ΑO OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

# ΑP AQ AR

**EXAMINER** 

DATE CONSIDERED

9/21/05

\* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

\* EXAMINER:

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO. 500444.04

APPLICATION NO.
Not Yet Assigned

APPLICANTS

Troy A. Manning

Concurrently herewith

FILING DATE

GROUP ART UNIT
Not Yet Assigned

U.S. PATENT DOCUMENTS SUBCLASS FILING DATE CLASS NAME \*EXAMINER DOCUMENT NUMBER DATE IF APPROPRIATE INITIAL DI 340 172.5 Griffin 3,633,174 01/04/72 AA **Takimoto** 179 15 BS 01/18/77 4,004,100 ΑB 4 331 4,077,016 02/28/78 Sanders et al. AC 307 362 Schroeder et al. 4,096,402 06/20/78 ΑD 307 260 09/13/83 Dingwall 4,404,474 ΑE 85 370 11/06/84 Roberts et al. 4,481,625 ΑF 307 577 04/02/85 4,508,983 Allgood et al. AG 328 164 4,511,846 04/16/85 Nagy et al. AΗ 307 269 4,514,647 04/30/85 Shoji ΑI 375 118 Hullwegen 4,524,448 06/18/85 ΑJ 327 114 4,573,017 02/25/86 Levine ΑK 331 1 A 07/15/86 Landsman 4,600,895 ΑL 341 89 07/29/86 4,603,320 Farago AM 451 307 01/20/87 Boler et al. 4,638,187 AN 395 889 01/20/87 Hester et al. ΑO 4,638,451 269 307 4,687,951 08/18/87 McElroy ΑP 370 112 02/23/88 Mori et al. 4,727,541 ΑQ 36.2 360 05/24/88 Furuhata et al. 4,746,996 AR 375 120 09/20/88 Cordell AS 4,773,085 307 443 12/06/88 **Foss** 4,789,796 ΑT 94 341 4,818,995 04/04/89 Takahashi et al. ΑU 328 14 4,893,087 01/09/90 Davis ΑV 331 25 02/20/90 4,902,986 Lesmeister ΑW 194 365 4,953,128 08/28/90 Kawai et al. ΑX 307 443 4,958,088 09/18/90 Farah-Bakhsh et al. ΑY 3 Farago 380 11/20/90 4,972,470 DATE CONSIDERED **EXAMINER** 

Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO. 500444.04

APPLICATION NO. Not Yet Assigned

APPLICANTS

Troy A. Manning INFORMATION DISCLOSURE STATEMENT FILING DATE GROUP ART UNIT (Use several sheets if necessary) Concurrently herewith Not Yet Assigned

EXAMINER		DOCUMENT NUMBER	DATE	. PATENT DOCUMENTS NAME	CLASS	SUBCLASS	FILING DATE
INITIAL						<del> </del>	IF APPROPRIAT
07	ВА	4,984,204	01/08/91	Sato et al.	365	189.11	
	ВВ	5,020,023	05/28/91	Smith	364	900	
	вс	5,038,115	08/06/91	Myers et al.	331	2	
	BD	5,062,082	10/29/91	Choi	365	230.06	
	BE	5,075,569	12/24/91	Branson	307	270	
	BF	5,086,500	02/04/92	Greub	395	550	
	BG	5,087,828	02/11/92	Sato et al.	307	269	
	вн	5,122,690	06/16/92	Bianchi	307	475	
	BI	5,128,560	07/07/92	Chern et al.	307	475	
	вј	5,128,563	07/07/92	Hush et al.	307	482	
	вк	5,130,565	07/14/92	Girmay	307	265	
	BL	5,134,311	07/28/92	Biber et al.	307	270	
	ВМ	5,150,186	09/22/92	Pinney et al.	357	42	
	BN	5,165,046	11/17/92	Hesson	307	270	
	во	5,168,199	12/01/92	Huffman et al.	315	370	
	ВР	5,179,298	01/12/93	Hirano et al.	307	443	
	BQ	5,182,524	01/26/93	Hopkins	330	149	
	BR	5,194,765	03/16/93	Dunlop et al.	307	443	
	BS	5,212,601	05/18/93	Wilson	360	51	
	вт	5,220,208	06/15/93	Schenck	307	443	
	BU	5,223,755	06/29/93	Richley	307	603	
	вν	5,229,929	07/20/93	Shimizu et al.	363	98	
_	вw	5,233,314	08/03/93	McDermott et al.	331	17	
<del>-  </del>	вх	5,233,564	08/03/93	Ohshima et al.	365	230.05	
$\overline{\mathbf{V}}$	ву	5,239,206	08/24/93	Yanai	307	272.2	<del></del>
DÍ	BZ	5,243,703	09/07/93	Farmwald et al.	395	325	
XAMINI	-	λ.	Turica	DATE CONSIDERED	<u> </u>	1105	

\* EXAMINER:

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO. 500444.04

APPLICATION NO.
Not Yet Assigned

#### INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

APPLICANTS
Troy A. Manning

FILING DATE
Concurrently herewith

GROUP ART UNIT
Not Yet Assigned

		<del></del>		. PATENT	DOCUMENTS		·	
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
20	CA	5,254,883	10/19/93	Horowitz	et al.	307	443	
	СВ	5,256,989	10/26/93	Parker et	al.	331	1 A	
	СС	5,257,294	10/26/93	Pinto et a	il.	375	120	
	CD	5,268,639	12/07/93	Gasbarro	et al.	324	158 R	
	CE	5,272,729	12/21/93	Bechade	et al.	375	118	
	CF	5,274,276	12/28/93	Casper et	al	307	443	
	CG	5,276,642	01/04/94	Lee		365	189.04	
	СН	5,278,460	01/11/94	Casper		307	296.5	L
	CI	5,281,865	01/25/94	Yamashi	ta et al.	307	279	
	CJ	5,283,631	02/01/94	Koerner e	et al.	307	451	
	СК	5,289,580	02/22/94	Latif et a	1.	395	275	
	CL	5,295,164	03/15/94	Yamamu	га	375	120	
	СМ	5,304,952	04/19/94	Quiet et a	al.	331	1 A	
	CN	5,311,481	05/10/94	Casper et	al.	365	230.06	
	со	5,311,483	05/10/94	Takasugi		365	233	
	СР	5,313,431	05/17/94	Uruma et	al.	365	230.05	
	cq	5,315,388	05/24/94	Shen et a	l	348	718	
	CR	5,321,368	06/14/94	Hoelzle		328	63	L,
	cs	5,337,285	08/09/94	Ware et a	1.	365	227	
	СТ	5,341,405	08/23/94	Mallard,	Jr.	375	120	
	CU	5,347,177	09/13/94	Lipp		307	443	
	с۷	5,347,179	09/13/94	Casper et	al.	307	451	
	cw	5,355,391	10/11/94	Horowitz	et al.	375	36	
	сх	5,361,002	11/1/94	Casper		327	530	
V	СҮ	5,367,649	11/22/94	Cedar		395	375	
OT	cz	5,379,299	01/03/95	Schwartz		370	108	
EXAMINE	ER	Dani	Im		DATE CONSIDERED	91	21/0	

Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

\* EXAMINER:

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO. 500444.04

APPLICATION NO.
Not Yet Assigned

#### INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

APPLICANTS
Troy A. Manning

FILING DATE
Concurrently herewith

GROUP ART UNIT
Not Yet Assigned

			U.S	. PATENT DOCUMENTS			
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
DI	DA	5,390,308	02/14/95	Ware et al.	395	400	
	DB	5,400,283	03/21/95	Raad	365	203	
	DC	5,402,389	03/28/95	Flannagan et al.	365	233	·
	DD	5,408,640	04/18/95	MacIntyre et al.	395	550	
	DE	5,410,263	04/25/95	Waizman	327	141	
	DF	5,416,436	05/16/95	Rainard	327	270	
	DG	5,416,909	05/16/95	Long et al.	395	275	
	DH	5,420,544	05/30/95	Ishibashi	331	11	
	DI	5,428,311	06/27/95	McClure	327	276	
	DJ	5,428,317	06/27/95	Sanchez et al.	331	1 A	
	DK	5,430,408	07/04/95	Ovens et al.	327	407	<del></del>
	DL	5,430,676	07/04/95	Ware et al.	365	189.02	
	DM	5,432,823	07/11/95	Gasbarro et al.	375	356	
	DN	5,438,545	08/01/95	Sim	365	189.05	
	DO	5,440,260	08/08/95	Hayashi et al.	327	278	
	DP	5,440,514	08/08/95	Flannagan et al.	365	194	
	DQ	5,444,667	08/22/95	Obara	365	233	
	DR	5,446,696	08/29/95	Ware et al.	365	222	
	DS	5,448,193	09/05/95	Baumert et al.	327	156	
	DT	5,451,898	09/19/95	Johnson	327	563	
	טם	5,457,407	10/10/95	Shu et al.	326	30	
	DV	5,465,076	11/07/95	Yamauchi et al.	331	179	
	DW	5,473,274	12/05/95	Reilly et al.	327	159	
	DX	5,473,575	12/05/95	Farmwald et al.	365	230.06	
	DY	5,473,639	12/05/95	Lee et al.	375	376	
DT	DZ	5,485,490	01/16/96	Leung et al.	375	371	
EXAMINE		Di	and	M DATE CONSIDERED	9/21	105	

Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in

\* EXAMINER:

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO. 500444.04 APPLICATION NO.
Not Yet Assigned

#### INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

APPLICANTS
Troy A. Manning

FILING DATE
Concurrently herewith

GROUP ART UNIT
Not Yet Assigned

	_=			Concurrency nerven	1.10	t Tet Assi	
*EXAMINER		DOCUMENT NUMBER	DATE DATE	. PATENT DOCUMENTS  NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
00	EA	5,488,321	01/30/96	Johnson	327	66	
	ЕВ	5,489,864	02/06/96	Ashuri	327	161	
	EC	5,497,127	03/05/96	Sauer	331	17	
	ED	5,497,355	03/05/96	Mills et al.	365	230.08	
	EE	5,498,990	03/12/96	Leung et al.	327	323	<del></del>
	EF	5,500,808	03/19/96	Wang	364	578	
	EG	5,502,672	03/26/96	Kwon	365	189.05	
	ЕН	5,506,814	04/09/96	Hush et al.	365	230.03	
	EI	5,508,638	04/16/96	Cowles et al.	326	38	
	ខ	5,513,327	04/30/96	Farmwald et al.	395	309	
	EK	5,532,714	07/02/96	Knapp et al.	345	114	
	EL	5,539,345	07/23/96	Hawkins	327	150	
	ЕМ	5,544,124	08/06/96	Zagar et al.	365	230.08	
	EN	5,544,203	08/06/96	Casasanta et al.	375	376	
	EO	5,550,783	08/27/96	Stephens, Jr. et al.	365	233	
	EP	5,552,727	09/03/96	Nakao	327	159	
	EQ	5,555,429	09/17/96	Parkinson et al.	395	800	
	ER	5,557,224	09/17/96	Wright et al.	327	115	
	ES	5,557,781	09/17/96	Stones et al.	395	550	
	ET	5,563,546	10/08/96	Tsukada	327	408	
	EU	5,568,075	10/22/96	Curran et al.	327	172	-
	EV	5,568,077	10/22/96	Sato et al.	327	199	
	EW	5,572,557	11/05/96	Aoki	375	376	
	EX	5,572,722	11/05/96	Vogley	395	555	
	EY	5,574,698	11/12/96	Raad	365	230.06	
or	EZ	5,576,645	11/19/96	Farwell	327	94	
EXAMINE	ER —-	Da	ider	DATE CONSIDERED	9/2	1/05	

Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO. 500444.04

APPLICATION NO. Not Yet Assigned

APPLICANTS

INFORMATION DISCLOSURE STATEMENT Troy A. Manning (Use several sheets if necessary) FILING DATE GROUP ART UNIT Concurrently herewith Not Yet Assigned

			U.S	. PATENT DOCUMENTS			
•EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
DI	FA	5,577,236	11/19/96	Johnson et al.	395	551	
	FB	5,578,940	11/26/96	Dillon et al.	326	30	
	FC	5,578,941	11/26/96	Sher et al.	326	34	
	FD	5,579,326	11/26/96	McClure	371	61	
	FE	5,581,197	12/03/96	Motley et al.	326	30	
	FF	5,589,788	12/31/96	Goto	327	276	
	FG	5,590,073	12/31/96	Arakawa et al.	365	185.08	
	FH	5,594,690	01/14/97	Rothenberger et al.	365	189.01	
	FI	5,614,855	03/25/97	Lee et al.	327	158	
	FJ	5,619,473	04/08/97	Hotta	365	238.5	- · · · · · · · · · · · · · · · · · · ·
	FK	5,621,340	04/15/97	Lee et al.	327	65	
	FL	5,621,690	04/15/97	Jungroth et al.	365	200	
	FM	5,621,739	04/15/97	Sine et al.	371	22.1	
	FN	5,627,780	05/06/97	Malhi	365	185.09	
	FO	5,627,791	05/06/97	Wright et al.	365	222	
	FP	5,631,872	05/20/97	Naritake et al.	365	227	
	FQ	5,636,163	06/03/97	Furutani et al.	365	233	
	FR	5,636,173	06/03/97	Schaefer	365	230.03	
	FS	5,636,174	06/03/97	Rao	365	230.03	
	FT	5,638,335	06/10/97	Akiyama et al.	365	230.03	
	FU	5,646,904	07/08/97	Ohno et al.	365	233	
	F۷	5,652,530	07/29/97	Ashuri	326	93	
	FW	5,657,289	08/12/97	Hush et al.	365	230.05	
	FX	5,657,481	08/12/97	Farmwald et al.	395	551	
	FY	5,663,921	09/02/97	Pascucci et al.	365	233	
OT	FZ	5,666,322	09/09/97	Conkie	365	233	

\* EXAMINER:

Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

)

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO. 500444.04

APPLICATION NO.

Not Yet Assigned

#### INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

APPLICANTS
Troy A. Manning

FILING DATE
Concurrently herewith

GROUP ART UNIT
Not Yet Assigned

			U.S	. PATENT	DOCUMENTS			
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
OT	GA	5,668,763	09/16/97	Fujioka e	et al.	365	200	
	GB	5,668,774	09/16/97	Furatani		365	233	
	GC	5,673,005	09/30/97	Pricer		331	1 R	
	GD	5,675,274	10/07/97	Kobayasi	hi et al.	327	158	
	GE	5,675,588	10/07/97	Maruyan	na et al.	371	20.4	
	GF	5,692,165	11/25/97	Jeddeloh	et al.	395	551	
	GG	5,694,065	12/02/97	Hamasak	i et al.	327	108	
	GH	5,708,611	01/13/98	Iwamoto		365	233 X	
	GI	5,712,580	01/27/98	Baumgar	tner et al.	327	12	
	GJ	5,719,508	02/17/98	Daly		327	12	
	GK	5,737,342	04/07/98	Ziperovio	ch	371	25.1	
	GL	5,740,123	04/14/98	Uchida		365	233	
	GM	5,751,665	05/12/98	Tanoi		368	120	
	GN	5,767,715	06/16/98	Marquis	et al.	327	159	
	GO	5,768,177	06/16/98	Sakuragi		365	194	
	GP	5,774,699	06/30/98	Nagae		395	551	
	GQ	5,778,214	07/07/98	Taya et a	1.	395	551	
	GR	5,781,499	07/14/98	Koshikav	va	365	233	
	GS	5,784,422	07/21/98	Heerman	n	375	355	
	GT	5,789,947	08/04/98	Sato		327	3	
	GU	5,790,612	08/04/98	Chengson	n et al.	375	373	
	GV	5,794,020	08/11/98	Tanaka e	t al.	395	552	
	GW	5,805,931	09/08/98	Morzano	et al.	395	884	
	GX	5,812,619	09/22/98	Runaldue		375	376	
	GY	5,822,314	10/13/98	Chater-Le	ea	370	337	
DT	GZ	5,831,929	11/03/98	Manning		365	233	
EXAMINE		C. C.	avidi		DATE CONSIDERED	9/2	_ /	
* EXAMINER					onformance with MPEP 609. Draw with next communication to application to applicat		tation if not in	<u>-</u>

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO. 500444.04

APPLICATION NO. Not Yet Assigned

APPLICANTS

Troy A. Manning

FILING DATE

GROUP ART UNIT

Concurrently herewith

Not Yet Assigned

		·		. PATENT DOCUMENTS			
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
DT	НА	5,841,707	11/24/98	Cline et al.	365	194	
	нв	5,852,378	12/22/98	Keeth	327	171	
	нс	5,872,959	02/16/99	Nguyen et al.	395	552	
	HD	5,889,829	03/30/99	Chiao et al.	375	376	
	HE	5,898,242	04/27/99	Peterson	327	278	
	HF	5,898,674	04/27/99	Mawhinney et al.	370	247	
	НG	5,917,760	06/29/99	Millar	365	194	
	ИН	5,920,518	07/06/99	Harrison et al.	365	233	
	ні	5,926,047	07/20/99	Harrison	327	159	
	HJ	5,926,436	07/20/99	Toda et al.	365	236	
	нк	5,940,608	08/17/99	Manning	395	551	
	HL	5,940,609	08/17/99	Harrison	395	559	
	нм	5,946,244	08/31/99	Manning	365	194	
	HN	5,953,284	09/14/99	Baker et al.	365	233	
	но	5,964,884	10/12/99	Partovi et al.	713	503	
	HP	5,990,719	11/23/99	Dai et al.	327	244	
	HQ	6,005,823	12/21/99	Martin et al.	365	230.08	
	HR	6,011,732	01/04/00	Harrison et al.	365	194	
	HS	6,016,282	01/18/00	Keeth	365	233	
	нт	6,023,489	02/08/00	Hatch	375	208	
	HU	6,026,050	02/15/00	Baker et al.	635	233	
	нν	6,029,250	02/22/00	Keeth	713	400	
	нw	6,038,219	03/14/00	Mawhinney et al.	370	242	
	нх	6,067,592	05/23/00	Farmwald et al.	710	104	
$\sqrt{}$	нү	6,101,152	08/08/00	Farmwald et al.	365	233	_
DT	HZ	6,101,197	08/08/00	Keeth et al.	370	517	

\* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO. 500444.04

APPLICATION NO.
Not Yet Assigned

APPLICANTS

Troy A. Manning

FILING DATE
Concurrently herewith

GROUP ART UNIT
Not Yet Assigned

		·		Concurrently herewit	h N	ot Yet Assi	gned	
			· U.S.	PATENT DOCUMENTS				
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING IF APPRO	
DT	IA	6,105,157	08/15/00	Miller	714	744		
	IB	6,147,905	11/14/00	Seino	365	185.11		
	IC	6,147,916	11/14/00	Ogura	365	203		
	ID	6,160,423	12/12/00	Haq	327	41		···
	IE	6,262,921 B1	07/17/01	Manning	365	194	<u> </u>	
	IF	6,269,451 B1	07/31/01	Mullarkey	713	401		
	IG	6,298,450 B1	10/02/01	Liu et al.	713	502		
	IH	6,327,196 B1	12/04/01	Mullarkey	365	194		
	II	6,338,127 B1	01/08/02	Manning	711	167	<u> </u>	
	ע	6,378,079 B1	04/23/02	Mullarkey	713	401		
DI	ΙK	6,499,111 B2	12/24/02	Mullarkey	713	401	<u> </u>	
			FORE	GN PATENT DOCUMENTS				<u> </u>
		DOCUMENT NUMBER	DATE -	COUNTRY	CLASS	SUBCLASS	YES	LATION NO
DT	IL	0 171 720 A2	02/19/86	EP			X	
´	IM	6-1237512	10/22/86	JP (Abstract Only)			Х	
	IN	0 295 515 A1	12/21/88	EP			х	
	10	2-112317	4/25/90	JP (+ Abstract)			х	
	ΙP	0 406 786 A1	1/9/91	ЕР			x	
	JQ	0 450 871 A2	10/9/91	EP			х	
	IR	0 476 585 A3	3/25/92	EP			х	
	IS	4-135311	5/8/92	JP (+ Abstract)			Х	
	ır	5-136664	6/1/93	JP (+ Abstract)			х	
V	IU	5-282868	10/29/93	JP (Abstract Only)			Х	
DT	īV	WO 94/29871	12/22/94	PCT			Х	
EXAMINI	ER		Mids	DATE CONSIDERED	0/-	11-		
					7/2/	105		

\* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

FORM PTO-1449 (REV.7-80)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 500444.04	APPLICATION NO. Not Yet Assigned
INFORMATION DISCLO	SURE STATEMENT	APPLICANTS Troy A. Manning	
(Use several sheets	if necessary)	FILING DATE  Concurrently herewith	GROUP ART UNIT

	Τ_	DOCUMENT NUMBER	DATE	IGN PATENT DOCUMENTS COUNTRY	CLASS	SUBCLASS	TRANS	
		DOGGALLI HOMBER	DAIL	COUNTRY	CLASS	SUBCLASS	YES	N
M	IW	0 655 741 A2	5/31/95	EP			х	
	ıx	0 655 834 A1	5/31/95	EP			X	
	IY	WO 95/22200	8/17/95	PCT			Х	
	ız	WO 95/22206	8/17/95	PCT			X	
	JA	0 680 049 A2	11/2/95	EP			Х	
	JB	0-7319577	12/8/95	JP (+ Abstract)			Х	
	JC	0 703 663 A1	3/27/96	EP.			Х	
	1D	0 704 848 A3	4/3/96	EP			Х	
	JE	0 704 975 A1	4/3/96	EP			Х	
	JF	WO 96/10866	4/11/96	PCT			X	
	JG	0 767 538 A1	4/9/97	EP			Х	
	JH	WO 97/14289	4/24/97	PCT			X	
Dr	л	WO 97/42557	11/13/97	PCT			х	
	T			ART (Including Author, Title, Date, Pertine		<sup>1</sup> Micropro	CASSAT	e"
DT	11			., Vol. E-78. No. 6, June 1995,		Micropio	CCSSOI	5
	JK	Anonymous, "400MHz SLDRAM, 4M X 16 SLDRAM Pipelined, Eight Bank, 2.5 V Operation," SLDRAM Consortium Advance Sheet, published throughout the United States, pp.1-22						
Anonymous, "Draft Standard for a High-Speed Memory Interface (SyncLink)", Microprocesse and Microcomputer Standards Subcommittee of the IEEE Computer Society, Copyright 1996 by the Institute of Electrical and Electronics Engineers, Inc., New York, NY, pp. 1-56								
	ЈМ	Anonymous, "Programmable Pulse Generator", IBM Technical Disclosure Bulletin, Vol. 17, No. 12, May 1975, pp. 3553-3554						
OT	JN			tizer CMOS Gate-Array with a Solid-State Circuits, Vol. 31, 1				
AMIN	ER	David	Tan	DATE CONSIDER	ED 9/2	1/05		

Not Yet Assigned

FORM PTO-1449
U.S. DEPARTMENT OF COMMERCE (REV.7-80)
PATENT AND TRADEMARK OFFICE
INFORMATION DISCLOSURE STATEMENT
(Use several sheets if necessary)

FILING DATE

ATTY. DOCKET NO.
500444.04
APPLICATION NO.
Not Yet Assigned

APPLICANTS
Troy A. Manning
FILING DATE

GROUP ART UNIT

Concurrently herewith

		OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)		
DT	10	Anonymous, "Pulse Combining Network", IBM Technical Disclosure Bulletin, Vol. 32, No. 12		
	JР	Anonymous, "Variable Delay Digital Circuit", IBM Technical Disclosure Bulletin, Vol. 35, No 4A, September 1992, pp. 365-366		
	JQ	359-364 and pp. 528-531		
	JR	Bulletin, Vol. 27, No. 5, October 1984, pp. 3059-3060		
	JS	Bazes, M., "Two Novel Fully Complementary Self-Biased CMOS Differential Amplifiers", IEEE Journal of Solid-State Circuits, Vol. 26, No. 2, February 1991, pp. 165-168		
	1T	Chapman, J. et al., "A Low-Cost High-Performance CMOS Timing Vernier for ATE", IEEE International Test Conference, Paper 21.2, 1995, pp. 459-468		
	טנ	Cho, J. "Digitally-Controlled PLL with Pulse Width Detection Mechanism for Error Correction", ISSCC 1997, Paper No. SA 20.3, pp. 334-335		
	Christiansen, J., "An Integrated High Resolution CMOS Timing Generator Based on an Array of Delay Locked Loops", IEEE Journal of Solid-State Circuits, Vol. 31, No. 7, July 1996, pp. 952-957			
	JW	Combes, M. et al., "A Portable Clock Multiplier Generator Using Digital CMOS Standard		
	Donnelly, K. et al., "A 660 MB/s Interface Megacell Portable Circuit in 0.3 μm-0.7 μm CMOS ASIC", IEEE Journal of Solid-State Circuits, Vol. 31, No. 12, December 1996, pp. 1995-2001			
	Goto, J. et al., "A PLL-Based Programmable Clock Generator with 50- to 350-MHz Oscillating Range for Video Signal Processors", IEICE Trans. Electron., Vol. E77-C, No. 12, December 1994, pp. 1951-1956			
	JZ	Gustavsion, David B., et al., "IEEE Standard for Scalable Coherent Interface (SCI)," IEEE Computer Society, IEEE Std. 1596-1992, August 2, 1993.		
	KA	Hamamoto, T., "400-MHz Random Column Operating SDRAM Techniques with Self-Skew Compensation", IEEE Journal of Solid-State Circuits, Vol. 33, No. 5, May 1998, pp. 770-778		
DT	КВ	Ishibashi, A. et al., "High-Speed Clock Distribution Architecture Employing PLL for 0.6μm CMOS SOG", IEEE Custom Integrated Circuits Conference, 1992, pp. 27.6.1-27.6.4		
EXAMINI		DavidIm DATE CONSIDERED 9/21/05		
EXAMIN		initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).		

FORM PTO-1449 (REV.7-80)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	1		
INFORMATION	DISCLOSURE STATEMENT	APPLICANTS Troy A. Manning		
(Use se	veral sheets if necessary)	FILING DATE Concurrently herewith	GROUP ART UNIT Not Yet Assigned	

		OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)	
OT.	кс	Kim, B. et al., "A 30MHz High-Speed Analog/Digital PLL in 2µm CMOS", ISSCC, February 1990	
	КD	Kikuchi, S. et al., "A GATE-ARRAY-BASED 666MHz VLSI TEST SYSTEM", IEEE International Test Conference, Paper 21.1, 1995, pp. 451-458	
	KE	Ko, U. et al., "A 30-ps JITTER, 3.6-µs LOCKING, 3.3-VOLT DIGITAL PLL FOR CMOS GATE ARRAYS", IEEE Custom Integrated Circuits Conference, 1993, pp. 23.3.1-23.3.4	
	KF	Lee, T. et al., "A 2.5V Delay-Locked Loop for an 18Mb 500MB/s DRAM", IEEE International Solid-State Circuits Conference Digest of Technical Papers, Paper No. FA 18.6, 1994, pp. 300-301	
	KG	Lesmeister, G., "A DENSELY INTEGRATED HIGH PERFORMANCE CMOS TESTER", International Test Conference, Paper 16.2, 1991, pp. 426-429	
	КН	Ljuslin, C. et al., "An Integrated 16-channel CMOS Time to Digital Converter", IEEE Nuclear Science Symposium & Medical Imaging Conference Record, Vol. 1, 1993, pp. 625-629	
	Maneatis, J., "Low-Jitter Process-Independent DLL and PLL Based on Self-Biased Techniques", IEEE Journal of Solid-State Circuits, Vol. 31, No. 11, November 1996, pp. 1723 1732		
Nakamura, M. et al., "A 156 Mbps CMOS Clock Recovery Circuit for Burst-mode Transmission", Symposium on VLSI Circuits Digest of Technical Papers, 1996, pp. 1		Nakamura, M. et al., "A 156 Mbps CMOS Clock Recovery Circuit for Burst-mode Transmission", Symposium on VLSI Circuits Digest of Technical Papers, 1996, pp. 122-123	
	Nielson, E., "Inverting latches make simple VCO", EDN, June 19, 1997		
	KL	Novof, I. et al., "Fully Integrated CMOS Phase-Locked Loop with 15 to 240 MHz Locking Range and ±50 ps Jitter", IEEE Journal of Solid-State Circuits, Vol. 30, No. 11, November 1995, pp. 1259-1266	
	КМ	Saeki, T. et al., "A 2.5-ns Clock Access, 250-MHz, 256-Mb SDRAM with Synchronous Mirror	
Santos, D. et al., "A CMOS Delay Locked Loop And Sub-Nanosecond Time-to-Digital Converter Chip", IEEE Nuclear Science Symposium and Medical Imaging Conference Record Vol. 1, October 1995, pp. 289-291			
	ко	Shirotori, T. et al., "PLL-based, Impedance Controlled Output Buffer", 1991 Symposium on VLSI Circuits Digest of Technical Papers, pp. 49-50.	
DT	КР	Sidiropoulos, S. et al., "A 700-Mb/s/pin CMOS Signaling Interface Using Current Integrating Receivers", IEEE Journal of Solid-State Circuits, Vol. 32, No. 5, May 1997, pp. 681-690.	
EXAMIN		Davidson DATE CONSIDERED 9/21/05	
* EXAMIN		Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).	

	TMENT OF COMMERCE ATTY. DOCKET NO. 500444.04	APPLICATION NO. Not Yet Assigned
INFORMATION DISCLOSURE STA	APPLICANTS Troy A. Mann	ning
(Use several sheets if necessary)	FILING DATE Concurrently	droup art unit Not Yet Assigned

		OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)				
DT	ко	Sidiropoulos, S. et al., "A CMOS 500 Mbps/pin synchronous point to point link interface", IEEE Symposium on VLSI Circuits Digest of Technical Papers, 1994, pp. 43-44				
	KR	Sidiropoulos, S. et al., "A Semi-Digital DLL with Unlimited Phase Shift Capability and 0.08-400MHz Operating Range," IEEE International Solid State Circuits Conference, February 8, 1997, pp.332-333				
	KS	Soyuer, M. et al., "A Fully Monolithic 1.25GHz CMOS Frequency Synthesizer", IEEE Symposium on VLSI Circuits Digest of Technical Papers, 1994, pp. 127-128				
	кт	Taguchi, M. et al., "A 40-ns 64-Mb DRAM with 64-b Parallel Data Bus Architecture", IEEE Journal of Solid-State Circuits, Vol. 26, No. 11, November 1991, pp. 1493-1497				
	Tanoi, S. et al., "A 250-622 MHz Deskew and Jitter-Suppressed Clock Buffer Using a Frequency- and Delay-Locked Two-Loop Architecture", 1995 Symposium on VLSI Circuits Digest of Technical Papers, Vol. 11, No. 2, pp. 85-86					
	ΚV	Tanoi, S. et. al., "A 250-622 MHz Deskew and Jitter-Suppressed Clock Buffer Using Two-Loop Architecture", IEEE IEICE Trans. Electron., Vol.E-79-C. No. 7, July 1996, pp.898-904				
	von Kaenel, V. et al., "A 320 MHz, 1.5 mW @ 1.35 V CMOS PLL for Microprocessor Clock Generation", IEEE Journal of Solid-State Circuits, Vol. 31, No. 11, November 1996, pp. 1715-1722					
	кх	Watson, R. et al., "Clock Buffer Chip with Absolute Delay Regulation Over Process and Environmental Variations", IEEE Custom Integrated Circuits Conference, 1992, pp. 25.2.1-25.2.5				
DT	ку	Yoshimura, T. et al. "A 622-Mb/s Bit/Frame Synchronizer for High-Speed Backplane Data Communication", IEEE Journal of Solid-State Circuits, Vol. 31, No. 7, July 1996, pp. 1063-1066				
EXAMIN		Davidson DATE CONSIDERED 9/21/05				
• EXAMINE		Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).				

h:\ip\documents\clients\micron technology\400\500444.04\500444.04 pto 1449.doc

## This Page is Inserted by IFW Indexing and Scanning Operations and is not part of the Official Record

### **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

D	effects in the images include but are not limited to the items checked:
	BLACK BORDERS
	☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
	☐ FADED TEXT OR DRAWING
•	☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
	☐ SKEWED/SLANTED IMAGES
	☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS
	☐ GRAY SCALE DOCUMENTS
	☐ LINES OR MARKS ON ORIGINAL DOCUMENT
	☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
	□ OTHER.

## IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.